CLEVELAND'S CULTURAL CENTER: Circling the Fine Arts Garden and Lagoon is a group of the city's most beautiful buildings. Starting in the lower right hand corner and moving to the right, they are: Tomlinson Hall of Case Institute of Technology; Amasa Stone Memorial Chapel of Western Reserve University; Severance Hall, home of the Cleveland Orchestra; the Art Museum, and Epworth Euclid Church with Wade Park Manor showing behind it.

IN THIS ISSUE...
NATIONALLY FAMOUS SPEAKERS FEATURE
CLEVELAND CONVENTION
BUILDING MATERIALS EXHIBIT
A.S.O. VISITS NELA PARK
CONVENTION PROGRAM
WHAT PRICE BUILDING?
SOME POPULATION TRENDS
PROBLEMS OF PASSIVE DEFENSE
THE BUILDERS OF THE NATION'S MOST MODERN AIRPORT SELECTED SIMPSON ACOUSTICAL TILE

DEDICATED in mid-summer, the huge new Seattle-Tacoma International Airport Terminal building sets a new precedent in contemporary functional design, utility and decor.

This advanced design called for advanced sound conditioning. So, Simpson Acoustical Tile was used in large quantities in all office spaces and wherever the efficiency and beauty of this superior perforated fiber material was advantageous. It was selected for its higher sound absorption, washable finish, and other exclusive features. Only Simpson Acoustical Tile met completely the standards of efficiency, beauty and economy desired by the architects and contractor. On your next job, why don't you, too, use this outstanding acoustical tile?

FOR MORE INFORMATION SEE THE MID-WEST ACOUSTICAL & SUPPLY CO.

1812 ST. CLAIR AVE., CLEVELAND 14, OHIO • Phone: MA 0031

BRANCH OFFICES AND WAREHOUSES

AKRON
419 Locust Street
JE 7934

COLUMBUS
1550 W. Mound Street
RA 8497

DAYTON
16 Eaker Street
MI 1643

SPRINGFIELD
264 Dover Rd.
4-4503

TOLEDO
418 Front Street
TA 8285

SEE MID-WEST'S ACOUSTICAL BOOTH AT THE OHIO ARCHITECTS' CONVENTION
LONG SPAN flexicore

SEE US AT BOOTH 25

floor, wall and roof slab construction . . . the pre-cast, pre-cured, hollow-cast concrete slab with pre-stressed steel reinforcement.

MANUFACTURED IN OHIO BY

PRICE BROTHERS COMPANY, DAYTON 1, OHIO
ARROWCRETE CORPORATION, COLUMBUS 8, OHIO
TRI STATE FLEXICORE COMPANY, CINCINNATI 9, OHIO
How to conceal telephone wires in a new home...

A telephone outlet, built into the walls of a new house when it is constructed, conceals telephone wires. Without the telephone outlet, wires may have to be placed along bright new walls in order to connect the telephone where it is wanted.

Small and large homes need telephone outlets.

(Get valuable planning information from our free, 12-page booklet, "Plan for Phones in Your New Home". Call or write today.)

Architects' and Builders' Service

THE OHIO BELL TELEPHONE CO.
RESULTS OF P. T. L. NAIL PULL TESTS MADE WITH MACOMBER V BAR JOISTS IN COMPARISON WITH WOOD

No other material gives me this holding power.

NOTE: The nailing groove in Macomber Nailable Steel V Joists is set for 8d Common Nails or No. 7 Screw Size, Spiral Nails.

Mr. Architect, Engineer or Contractor:

At the Pittsburgh Testing Laboratory 8d common nails were driven into wood 2x4's. It required an average of 177 pounds pull per nail to remove them.

Then 8d common nails were driven into Macomber V Sections and it required an average of 277 pounds pull per nail to remove them. OVER 56% better grip than wood.

Then they drove No. 7 Screw Size Spiral Nails—the kind Macomber recommends for special conditions—into various sizes of V Sections and it required an average of 436 POUNDS PULL per nail to remove them . . . nearly two and a half times the grip of common nails driven into wood.

Here's a booklet you will want for reference in your files.

Only the patented Macomber V Section used as the top chord of all V Joists provides such easy nailability with such outstanding gripping power. Specify Macomber V Bar Joists from standard institute loading tables.

Macomber Incorporated Canton, Ohio

In Canada, Sarnia Bridge Co., Limited, Sarnia, Ont.
In Mexico D. F.—Macomber de Mexico S. A. Cedro 500

Standardized Steel Building Products
MURPHY-CABRANETTE KITCHENS
Series 60—Model C

Never before has so much capacity...so much convenience...been offered in a 5-foot kitchen. No single facility has been featured...no requirement has been skimped. Cooking, refrigeration, storage and work space...all are ample and in balance. Minimum maintenance costs proven in more than 25 years of trouble-free operation in rental properties. Other models available 39 to 69 inches wide.
SENSATIONAL
NEW 1949
PHILCO
REFRIGERATOR

7.2 cubic foot capacity
in the floor space
of a "4"

In a cabinet that occupies no more
floor space than a four foot refrigerator
of the past, here's a tremendous
increase in fully usable food storage
capacity. Now 7.2 cu. ft. of space...
and full 14 sq. ft. of shelf capacity. It's a
Philco triumph in modern, efficient
design, in convenience for the user, in
real value at the lowest price.

NOW
$229.50
EASY TERMS

A REVOLUTION IN
REFRIGERATOR DESIGN
IDEAL FOR APARTMENTS

NEW "ADVANCED DESIGN" FEATURES

GLASS-COVERED CRISPER DRAWER. Deep,
glass-covered drawer keeps vegetables, greens
and fruits fresh and crisp in moist cold. Oper­
etes on steel slides for smooth gliding action.

COLD STORAGE TRAY
Full width sliding tray directly beneath the
freezing compartment, provides ideal cold
storage conditions for meats and other foods.
A brand new convenience from Philco.

Send for Free Literature

Send for Free Literature
STRONG, CARLISLE & HAMMOND CO.
2801 ST. CLAIR AVENUE • CLEVELAND, OHIO • MAin 9165

[September, 1949] 7
NATIONALLY KNOWN SPEAKERS FEATURE CLEVELAND CONVENTION

From all indications observed by the Convention Committee of the Architects Society of Ohio, the Cleveland Convention promises to be one of the best attended for some time.

The Women's Committee have worked exceptionally hard to give the fair sex a pleasant sojourn at the convention.

The opening Luncheon at noon on Thursday, October 13 will be open to both Architects and their wives. The Honorable Mayor Thomas A. Burke of Cleveland will give the official welcome, while Paul C. Ruth, President of the Cleveland Chapter will do likewise on behalf of

The afternoon program at Nela Park promises to be one of the highlights of the convention according to Mr. Wilbur Riddle Chairman of the Nela Park Program. All details have been completed to handle a large delegation of Architects and their wives. In another section of this issue is a detailed story on Nela Park.

The seminar on "Planning and the Housing Act of 1949" is scheduled for Friday morning, October 14th.

Ernest J. Bohn, moderator for this seminar is Director of the Regional Association of Cleveland, and Chairman of the City Planning Commission of Cleveland.

Nathaniel S. Keith the newly appointed Director of slum clearance and urban redevelopment program provided by the Housing Act of 1949 will speak on the (Continued on page 16)
ARCHITECTS – Be Sure to Visit the
BUILDING MATERIAL EXHIBIT
in the Hotel Allerton Ball Room – October 13-15

The following exhibitors extend you a cordial invitation to visit with them:

<table>
<thead>
<tr>
<th>BOOTH</th>
<th>Exhibitor Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>Alberene Stone Corp.</td>
</tr>
<tr>
<td>17</td>
<td>Aluminum Co. of America</td>
</tr>
<tr>
<td>25</td>
<td>Arrowcrete Corp.</td>
</tr>
<tr>
<td>22</td>
<td>Avery Engineering Corp.</td>
</tr>
<tr>
<td>4</td>
<td>Buehler Bros.</td>
</tr>
<tr>
<td>19</td>
<td>Chamberlin Co. of America</td>
</tr>
<tr>
<td>23</td>
<td>Cleveland Builders Supply Co.</td>
</tr>
<tr>
<td>24</td>
<td>Cupples Products Co.</td>
</tr>
<tr>
<td>11</td>
<td>Fiat Metal Mfg. Co.</td>
</tr>
<tr>
<td>7</td>
<td>Geist Coal &amp; Supply Co.</td>
</tr>
<tr>
<td>29</td>
<td>Graham Co.</td>
</tr>
<tr>
<td>33</td>
<td>Johns-Manville Sales Corp.</td>
</tr>
<tr>
<td>18</td>
<td>Josam Mfg. Co.</td>
</tr>
<tr>
<td>28</td>
<td>Geo. P. Little Co.</td>
</tr>
<tr>
<td>8</td>
<td>'Lumiland Distributing Co.</td>
</tr>
<tr>
<td>5</td>
<td>Macomber, Inc.</td>
</tr>
<tr>
<td>6</td>
<td>W. J. Marshall</td>
</tr>
<tr>
<td>20</td>
<td>Midwest Acoustical Co.</td>
</tr>
<tr>
<td>15</td>
<td>Benjamin Moore &amp; Co.</td>
</tr>
<tr>
<td>1</td>
<td>Neo Sales, Inc.</td>
</tr>
<tr>
<td>16</td>
<td>Owens-Corning Firbreglas Corp.</td>
</tr>
<tr>
<td>30</td>
<td>Pittsburgh Plate Glass Co. 30 and 31</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BOOTH</th>
<th>Exhibitor Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Pressure Block &amp; Supply Co.</td>
</tr>
<tr>
<td>9</td>
<td>H. H. Robertson Co.</td>
</tr>
<tr>
<td>21</td>
<td>F. C. Russell Co.</td>
</tr>
<tr>
<td>35</td>
<td>Harvey G. Stief, Inc.</td>
</tr>
<tr>
<td>14</td>
<td>U. S. Plywood Corp.</td>
</tr>
<tr>
<td>32</td>
<td>Vermont Marble Co.</td>
</tr>
<tr>
<td>26</td>
<td>Weatherseal Corp.</td>
</tr>
<tr>
<td>12</td>
<td>Westinghouse Elect. Corp. 12 and 13</td>
</tr>
<tr>
<td>2</td>
<td>Williams Pivot Sash Co.</td>
</tr>
<tr>
<td>11</td>
<td>J. A. Zurn Mfg. Co.</td>
</tr>
</tbody>
</table>

The Ohio
A.S.O. GOES TO NELA PARK
OCTOBER 13th

The Nela Park meeting of the A. S. O. Convention on October 13 promises an eventful program, highlighted with several features which should make a profitable session.

Busses leaving Hotel Allerton at 3:30 will arrive at 4:00 p.m. at the General Electric Lighting Institute. While registration is underway convenient groups will be formed to take escorted tours of the Institute demonstration rooms. Lectures will be heard at Horizon House, the magic center of the Institute's home lighting display, in the extensive Store Lighting section, and in the Office and School Lighting exhibits. Each of these several Institute rooms has a great variety of ideas to offer and the lectures have the advantage of many devices to make sure you see the "how-to" of the phenomena they describe. Architects always get a lot of inspiration out of these stimulating demonstrations.

Since a cocktail period follows the Institute tours, the inspiration stimulated by the lectures will have a chance for expression at a period when one's fellow architects are in the mood for professional discussion. And this carries the program quickly on to the Institute tours, the inspiration out of these stimulating demonstrations.

The after dinner program will bring a talk on Light and Architecture by G-E Lamp's, Light-selling expert, C. M. Cutler, W. D. Riddle, Architect of the General Electric Institute who has a wide acquaintance with members of the profession in the community, will offer pertinent comments on Lighting and Housing.

The final event of the evening will be the New Horizons show, a special Nela Park super feature dealing with unusual and spectacular lamp and lighting phenomena. This event will be conducted by a staff lecturer who will doubtless offer some special eye openers for architects.

Nela Park has been an industrial show place since it was opened in 1913. Since that time it has become the acknowledged lighting capital of the world. Visitors from foreign lands are as eager to visit the G-E Institute for the latest developments in lighting as most Americans are for baseball.

Speaking of baseball, it was just 20 years ago that Nela Park specialists were working on plans for the first professional baseball park lighting. Since then the national pastime has become a great and profitable spectacle at the night (Continued on page 19)

The Lamp Gallery is the featured display.

A scene in the Sun Deck, G-E Lighting Institute, Nela Park. The installation for this room constitutes an attractive way of "bringing the sun indoors." It is the prototype of installations now in service in hotels and in the plans for hospitals. Fifteen minutes exposure under the lamps in this solarium can give under the lamps gives a fine suntan.

A scene in the Fountain Terrace, G-E Lighting Institute, Nela Park. The fountain in the million-gallon reservoir offers a grand setting for the main facade of the G-E Lighting Institute. There are 42 color projectors in water-tight sockets operated in connection with the fountain to provide a brilliant sequence of rainbow tints.
A. S. O. CONVENTION PROGRAM
CLEVELAND—OCTOBER 13, 14, 15, 1949

Thursday, October 13

9:00 A. M.—Committee Meetings.
10:00 A. M.—Registration of Architects and Guests. Review of Competition Drawings and Building Materials Exhibit.
12:00 Noon—Luncheon - Chester Room. George S. Voinovich, First Vice President, A.S.O., Presiding. Welcome by Hon. Thomas A. Burke, Mayor of Cleveland. Welcome by Paul C. Ruth, President Cleveland Chapter. Response by C. Curtis Insoho, President, A. S. O. Speaker, Egbert Jacobson, Director of Design, Container Corporation of America. Subject: “Public Relations.”
Program by General Electric Lighting Institute, Nela Park, World Center of Lighting Research, Wilbur D. Riddle, General Electric, Chairman.
3:30 P. M.—Busses Leave Hotel Allerton Main Entrance for Nela Park.
4:00 P. M.—Arrive Nela Park for inspection of Horizon House, Store, Office, School, Sundeck, Color.
6:00 P. M.—Refreshments in Restaurant Area.
6:45 P. M.—Dinner
9:45 P. M.—Adjourn—Informal Inspection — Refreshments. Busses return to hotel.

Friday, October 14

Speakers—Nathaniel S. Keith, Director of Slum Clearance and Urban Redevelopment program provided by Title I of the Housing Act of 1949
Proctor Noyes, Director Cuyahoga County Regional Planning Commission.
Herbert Starick, Director Dayton City Planning Board.
2:00 P. M.—Official Opening of Business Session, Chester Room, Hotel Allerton. C. Curtis Insoho, President of A. S. O., Presiding. Reports by President, Treasurer, Secretary and Standing Committees, Resolutions, Election of Officers.
6:00 P. M. Cocktail Party—Host—The Cleveland Chapter, A. I. A., Chester Room, Hotel Allerton.

Saturday, October 15


PROGRAM FOR LADIES

Thursday, October 13th

3:30—Busses leave Hotel Allerton for Nela Park.
4:00—Program at Nela Park followed by cocktails and dinner—guests of General Electric Co.

Friday, October 14th

10:15 A.M.—Buses leave Hotel Allerton.
11:00—12:00—Visit Art Museum or Garden Center.
12:00—1:30 P. M.—Sightseeing including tour of Shaker Square.
1:30 P. M.—Luncheon—Stouffers, Shaker Square.
3:00 P. M.—Visit new Play House, 77th St. and Tea.
4:30 P. M.—Busses return to Hotel Allerton.
6:00—Cocktail Party, Hotel Allerton.
7:00 P. M.—Banquet, Hotel Allerton.

THE ARCHITECT AS A MIND READER

By WILLIAM ROGER GREELEY, F.A.I.A.
(From a local broadcast to a New England lay audience)

An architect is like any other servant with a specialized training—he can be handled so as to be a help or so as to be a hindrance. He can be misled, fooled, frustrated, pampered or spoiled, or he can be enlisted, guided, encouraged and challenged to his best. In this respect he is just like a compositor, a doctor or a cook, and not so unlike a sensitive child.

It is a common error to start in, as soon as he is introduced to you, by asking him what his ideas are. If he is the right sort he won’t have any. His mind will be purposely blank readied for impressions—like a clean slate. He will be upset by being asked to show you what you should have. To him any satisfactory answer to your problem must come as a result of long and concentrated study. You see he takes his profession seriously. Any so-called architect who starts in by showing you sketches is like a hen which cackles before she has laid her egg.

When you approach your architect, imagine that he is a doctor. You won’t stick your tongue out at him, but you will let him see the color of your thoughts. Don’t hold your ideas back for fear they are sick ones. Trot them out and let them be examined. Above all show your architect your enthusiasm. No architect can do his best without being stimulated to it. He needs a client who won’t be satisfied with anything but the best, and who will urge him on to create the best that is in him to create.

You, the client, occupy the commanding position. What you do will determine what he does. Do you know how to encourage servants and get a lot out of them? It is an art in itself and one worth cultivating with your lawyer, your minister, your doctor and your architect. You can rub them the wrong way and hinder their efforts to serve you, or you may have them outdoing themselves to please you.

Now, listeners-in, the architect designs and creates, and so is an artist. Yet his work must provide useful and convenient buildings, so his art must be kept within bounds and not interfere with utility. His art is, or should be, a conforming art, not free and unfettered like

(Continued on page 24)
MODERN MORTUARY PLANNING

By HAROLD H. HUNTER
Warren, Ohio

The utmost in flexible simplicity, designed to enhance its service, was the aim in the new Mallory Memorial Home at Garrettsville, Ohio, recently opened by Philip J. Mallory. From the selection of its site to the arrangement of its garage, the new building was built to a rigid specification that it was to make possible an economical operation fitting to the needs of a mortuary in a small community which serves a wide area.

In the very decision to build new, rather than to remodel and modernize the old, economy was a governing factor.

It was estimated that a new building would cost about fifty per cent more than the expense of bringing the old one up to date. However, the old building had reached that stage where its maintenance, even after modernizing, would place a heavy burden on the operation, and it was figured that this additional expense would add a penalty that in a few years might bring the cost up to that of the new building. At the end of a short period it was figured the new building would be valued at twice the old thereby erasing any saving to be derived from a remodeling program. In the meantime, with a new building the firm has the satisfaction of operating in modern quarters with every detail planned for efficient operation. An analysis of overhead expenses, including amortization and interest indicates that on present volume the cost per funeral will be no greater than the national average. The decision was made to go ahead with the project.

The new Mallory home is located on a nine-acre tract in a residential area of Garrettsville that is but six minutes from the business district. The site has been named Elmwood Knoll and comprises woods, creek, rock ledges, ravine and several acres of lawn. The home overlooks a valley. As contrasted to the former parking area suitable for a bare half dozen cars the new one has a practically unlimited capacity, and now that funeral services are drawing more people from wider areas this is a factor worthy of considering.

Ranch house style best describes the external appearance of the building. It is built of field stone and block construction throughout, with a large window at one end of the building. The lower floor, accessible by stairs and by elevator, houses the storage and boiler rooms, and contains a casket display room of some 50 by 70 feet, with a capacity of thirty caskets.

The main floor, also 50 by 70 feet, houses all of the operation. Its service room, 46 feet long by 27 feet wide, is served by an entrance foyer that is at one end of the building. A corridor extends along the service room's side, uniting the foyer at one end with the main hall at the other, and separating the service room from the family room. Three doorways enter into the service room from the corridor, and two doors give entrance to the family room. This room is 12 by 30 feet and can accommodate sixty people. It can be partitioned into two rooms by simply drawing Modernfold doors across its middle. Similarly the service chapel can be broken up into three separate rooms by Modernfold doors. Each portion of the service room, or of the family room thus has its own entrance from the corridor. This gives the utmost flexibility of room arrangement, permitting the home to adjust its facilities to the needs of the service, and making possible simultaneous calling hours for as many as five families with complete privacy and freedom from confusion.

With the casket alcove at the end of the service room
(Continued on page 29)
Nationally Known Speakers  
(Continued from page 9)  
“Roll of Federal Government in carrying out the Housing Act of 1949.” Mr. Keith has been in the housing field for many years and prior to his present position was special assistant to the Housing and Home Finance Agency Administrator.

Proctor Noyes, Director of the Cuyahoga County Regional Planning Commission will speak on “The Roll of Regional and County Planning in carrying out the Housing Act of 1949.” Prior to his present position Mr. Noyes was Commissioner of Design and Construction and Post War Planning Coordinator for the City of Cleveland.

Herbert W. Starick, Planning Director, Dayton City Plan Board will speak on “The Roll of the City Planning Commission in carrying out the Housing Act of 1949.” Mr. Starick has had wide experience in city planning, being senior planner for the city of Cleveland for a number of years before being appointed to his present post.

The Luncheon following the seminar will be addressed by Hugh Pomeroy, Director of Planning, Westchester County Planning Commission, White Plains, New York. Mr. Pomeroy has for many years been one of the dynamic leaders in the Planning profession.

The afternoon meeting will be the business meeting of the convention, including reports of the officers and various standing committees, and election of officers for the ensuing year.

Following the business meeting, the Cleveland Chapter will be hosts at the cocktail party in the Chester room of the Allerton Hotel.

The Annual Banquet on Friday evening will be highlighted by Ralph Walker, President of the American Institute of Architects who will give the main address.

The Saturday morning session will be turned over to reorganization and formulation of plans for the ensuing year. A detailed program of the entire activities of the convention will be found elsewhere in this issue of the “Ohio Architect.”

MAYOR THOMAS J. BURKE  
who will present the “Keys of the City” to visiting Architects
NEWS OF THE CLEVELAND CHAPTER
By JEAN FENTON, Associate Editor

Cleveland will be a beehive of activity for the architects this month and next. The program helm has been in able hands as evidenced by the following sequence of events:

September 25—The American Hospital Association is having its annual convention here at the Hotel Cleveland. It will last for three days, September 26, 27, 28, to be preceded by a special meeting for architects on Sunday, the 25th, at 10:00 A.M. This Sunday morning session will be devoted to consideration for fire safety in hospital design as well as new provisions being considered by the National Fire Protection Association in connection with anesthesia explosions in hospital operating rooms. The afternoon session will be devoted to more detailed consideration for several problems having to do with new developments of hospital design. All architects have been cordially invited to attend this meeting as well as the convention itself. The exhibits of hospital equipment are extensive and annually are used by manufacturers for the introduction of new types of equipment.

On Wednesday morning, the 28th, the speakers will include Mr. Myron L. Matthews of Dow Service, Inc. of New York City, Robert W. Cutler, A.I.A. of Skidmore, Owings & Merrill, and Dr. John B. Pastore of the Greater New York Hospital Council. The chairman of this session will be Mr. James R. Edmunds, Jr., past president of the A.I.A. The time, 9:30 A.M.; the place, the Cleveland Public Auditorium. This meeting will be a joint meeting for hospital administrators and architects dealing with subjects of a more general interest than those which will be treated on Sunday.

September 26—The Producers' Council have invited us to a luncheon-meeting at the Union Commerce Building's Midday Club. Thomas Creighton, Editor of Progressive Architecture, will be the speaker.

September 28—The First Chapter Meeting of the year has been scheduled for the Mather Room of the Allerton Hotel for dinner at 6:30 P.M. Tom Creighton is planning to stay over from the Producers' Council meeting to be with us for the evening.

October 10, 11, 12—The American Society of Planning Officials Conference which is being held at the Statler Hotel is so well integrated with our own convention that its program is given on a separate page of this magazine.

October 13, 14, Thursday and Friday, the Annual Convention of the A.S.O. The particulars will be found elsewhere in this issue of the "Ohio Architect." Put these dates down on your calendars, Architects of Ohio, this convention is a not-to-be-missed affair. It has been extremely well planned and will be of great interest to everyone.

MISCELLANEOUS ITEMS OF INTEREST

The National Bureau of Standards has revised its A.S.A. Masonry Division A-41 to incorporate an expansion of requirements as called for in the new Cleveland Building Code's requirements for masonry veneer.

The Marshall Plan was viewed in action at close range in Cleveland this past month. The British Building Construction Group sent over from England to view and study American building and industrial production methods, fulfilled its mission in Cleveland through the efforts and hospitality of the Cleveland Chapter of the A.I.A. We have received many personal thank-you notes from this group (comprised of British architects, build-

(Continued on page 18)
DECORATIVE MOULDINGS
OF ALUMINUM ALLOY BY

Trimedge will bend the above mouldings and others also when specifications are within the physical limits of the section. A template or detailed drawing is all that is needed.

Trimedge has many other decorative aluminum mouldings of the highest quality available in bright or anodized finishes. Write for Catalogs No. 149 and 150.

TRIMEDGE, INC.
YOUNGSTOWN, OHIO

TENTATIVE PROGRAM - A. S. P. O.
NATIONAL PLANNING CONFERENCE
STATLER HOTEL, CLEVELAND — OCTOBER 9th to 12th

Pre-Conference Events
Sunday, October 9
Regeneration
Informal Supper
Motion Picture Films On Planning

Monday, October 10
Regeneration
Planning—Why?—Thomas A. Burke, Mayor of Cleveland.
Keynote Address—Herman Finer, Professor, Political Science Department, University of Chicago.
LARGE CITY PLANNING PROBLEMS
Chairman—J. M. Lister, Director, Cleveland City Planning Commission.
Dead Land—Frederick T. Ashman, Executive Director, Cook County (Illinois) Housing Authority.
Commercial Land Use Allocation in Urban Redevelopment—Richard May, Jr., Harrison, Ballard and Allen, New York City.
Reduction of Excessive Areas in Commercial Zones—Jack M. Mosier, City Planner, Flint (Michigan) Planning Commission.
Off-Street Parking Requirements—John G. Marr, City Planning Engineer, Oakland, California.
Union Motor Truck Terminals—Thomas E. McCormick, Executive Director, Boston City Planning Board.
Recreation—Eric W. Thrift, Director, Metropolitan Plan-Greater Winnipeg, Winnipeg, Canada.
Reporter—Donald Hutton, Oklahoma City Planning Commission.

SMALL CITY PLANNING PROBLEMS
Chairman—C. R. Mocine, Director, Phoenix City Planning Commission.
Garden Apartments—Henry C. Moore, Planning Director, City and County Planning Board, Winston-Salem, North Carolina.
Extending the Planning Budget By Use of Citizen Groups—John C. Merkel, Secretary, Bremerton (Washington) City Planning Commission.
Cooperation With State Highway Plans—J. Haslett Bell, Consultant, Portland, Oregon.
Conducting the Public Hearing—A. L. Drake, Chairman, Waterloo (Iowa) Planning Commission.
Strengthening the Local Economy to Make Planning More Effective—Frederic H. Bair, Jr., Director, Casper Long Range Plan, Casper, Wyoming.
Reporter—William S. Bonner, Senior Planning Analyst, Department of Planning, El Paso, Texas.

AMERICAN INSTITUTE OF PLANNERS—TECHNICAL PAPERS
Personnel Standards and Classification—Mark Fortune, Planning Director, Cambridge City Planning Board.
Committee Reports
Motion Picture Films On Planning

Tuesday, October 11
NATIONAL PLANNING POLICY (Young Planners' Session)
COUNTRY PLANNING PROBLEMS
Chairman—Fred W. Tuemmler, Director of Planning, Prince George's County Regional Office, Riverdale, Maryland.
Industrial Development and Rural Areas—Arthur H. Adams, Director of Planning, Regional Planning Commission, Los Angeles, California.

Agricultural Zoning—Mary R. Gilkey, Planning Technician, San Rafael, California.

Airports—George N. Wallace, Executive Director, Montgomery County Planning Commission, Dayton, Ohio.

County Planning on a Regional Basis—Bartlett Dunn, Planning Director, Regional Planning Commission, Reno, Nevada.

Joint City-County Staffs and Organization—Edgar A. Wilson, Executive Secretary, Tucson (Arizona) Planning Commission.

Administration of Zoning Ordinances and Building Codes in Rural Areas—John W. Reps, Executive Secretary, Broome County Planning Board, Binghamton, New York.

Reporter—Ellick Maslan, Executive Director, Toledo, Lucas County (Ohio) Plan Commissions.

Urban Redevelopment

Chairman—Frederick J. Adams, President, American Institute of Planners, Cambridge, Massachusetts.


A New Look at the Role of Public Housing in Urban Redevelopment—Warren J. Vinton, Chief Economist, HHFA, Washington, D. C.

Discussers—Lawrence Cox, President, National Association of Housing Officials, Norfolk, Virginia.


The Businessman Looks at Cities—Luncheon Address.

Chairman—Francis A. Pitkin, Executive Director and Secretary, Pennsylvania State Planning Board, Harrisburg.

ASPO Annual Meeting

Transportation Planning by the National Government—Wilfred Owen, Brookings Institute, Washington, D. C.

Mass Transportation at the Local Level—Charles E. De Leuw; De Leuw Cather & Company, Chicago.

Ports and Terminals in the Community Plan—Frank W. Herring, Chief, Planning Bureau, Port of New York Authority, New York.

Reporter—Harold M. Mayer, Director of Research, Chicago Plan Commission.

Wednesday, October 12


Public Relations in Planning

Chairman—Paul Opperman, Director, San Francisco City Planning Commission.


Public School Courses—Margaret Carroll, Planning Technician, Tennessee State Planning Commission, Nashville, Tennessee.


ARCHITECT
HANDY INFORMATION
LIBBEY-Owens-Ford
QUALITY GLASS PRODUCTS

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>THICKNESS (in inches)</th>
<th>STD. MAX. SIZES</th>
<th>WEIGHTS LBS. PER SQ. FT. (Approx.)</th>
<th>COLORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>THERMOPANE*</td>
<td>Metal-sealed Insulating Glass Unit</td>
<td>Depending on thickness</td>
<td>More than 80 sizes furnished upon request</td>
<td>3.5 Clear Heat-Absorbing Translucent</td>
</tr>
<tr>
<td>Window Glass</td>
<td>Single</td>
<td>.085-.100</td>
<td>90 united inches</td>
<td>1.22 Clear</td>
</tr>
<tr>
<td>AA, A, B</td>
<td>AA, A, B</td>
<td>.115-.133</td>
<td>120 united inches</td>
<td>1.625 Clear</td>
</tr>
<tr>
<td>Double Strength</td>
<td>.161-.180</td>
<td>16 x 18</td>
<td>1.625 Clear</td>
<td></td>
</tr>
<tr>
<td>AA, A, B</td>
<td>.182-.205</td>
<td>18 x 20</td>
<td>1.625 Clear</td>
<td></td>
</tr>
<tr>
<td>Greenhouse Glass</td>
<td>.205-.230</td>
<td>20 x 20</td>
<td>1.625 Clear</td>
<td></td>
</tr>
<tr>
<td>THERMOPANE*</td>
<td>Heavy Plate Glass</td>
<td>.182-.205</td>
<td>16 x 24</td>
<td>1.625 Clear</td>
</tr>
<tr>
<td>7/32 Heavy Sheet Glass</td>
<td>.182-.205</td>
<td>18 x 20</td>
<td>1.625 Clear</td>
<td></td>
</tr>
<tr>
<td>7/32 Heavy Sheet Glass</td>
<td>.205-.230</td>
<td>20 x 20</td>
<td>1.625 Clear</td>
<td></td>
</tr>
<tr>
<td>Polished Plate Glass</td>
<td>.050</td>
<td>72 x 74</td>
<td>1.64 Clear</td>
<td></td>
</tr>
<tr>
<td>.060</td>
<td>72 x 74</td>
<td>2.65 Clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.080</td>
<td>124 x 170</td>
<td>3.27 Clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.100</td>
<td>120 x 150</td>
<td>4.90 Clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Qualities: Silvering, Glazing, Mirror</td>
<td>.120</td>
<td>100 x 150</td>
<td>5.34 Clear</td>
<td></td>
</tr>
<tr>
<td>.140</td>
<td>80 x 140</td>
<td>8.17 Clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.160</td>
<td>80 x 130</td>
<td>9.81 Clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.200</td>
<td>110 x 140</td>
<td>11.44 Clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.250</td>
<td>100 x 100</td>
<td>13.08 Clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.300</td>
<td>100 x 100</td>
<td>16.25 Clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colored Plate Glass</td>
<td>7/32</td>
<td>100 x 140</td>
<td>2.86 Standard Blue</td>
<td></td>
</tr>
<tr>
<td>.050</td>
<td>100 x 140</td>
<td>Medium Blue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.060</td>
<td>100 x 140</td>
<td>Peach</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.080</td>
<td>100 x 140</td>
<td>Golden</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Golden Plate Glass</td>
<td>.080</td>
<td>100 x 140</td>
<td>1.37 Clear</td>
<td></td>
</tr>
<tr>
<td>.090</td>
<td>100 x 140</td>
<td>Cool Blush Green</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.100</td>
<td>100 x 140</td>
<td>3.27 Cool Blush Green</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TUF-FLEX*</td>
<td>Tempered Plate Glass</td>
<td>.050 thru .090</td>
<td>56 x 108</td>
<td>3.25 Clear and same as Colored Plate Glass</td>
</tr>
<tr>
<td>.060 thru .090</td>
<td>40 x 100</td>
<td>16.25 Clear and same as Colored Plate Glass</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIRRODANE*</td>
<td>Transparent Mirror</td>
<td>.060 thru .090</td>
<td>30 x 60</td>
<td>1.64 Clear and same as Colored Plate Glass</td>
</tr>
<tr>
<td>.060 thru .090</td>
<td>30 x 60</td>
<td>26.64 Clear and same as Colored Plate Glass</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VITROLINE*</td>
<td>Structural Glass</td>
<td>.070 thru .090</td>
<td>Depending upon usage</td>
<td>4.40 Sky Blue, Cadet Blue, Jade, Cactus Green, Light Gray, Peach, Cactus Green, Mahogany, White, Red, Black</td>
</tr>
<tr>
<td>.110 thru .132</td>
<td>7/16</td>
<td>10.2 Sky Blue, Cadet Blue, Jade, Cactus Green, Light Gray, Peach, Cactus Green, Mahogany, White, Red, Black</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blue Ridge Patterned Glass</td>
<td>.120</td>
<td>48 x 1327</td>
<td>1.75 Clear, Translucent Obscure</td>
<td></td>
</tr>
<tr>
<td>.120</td>
<td>48 x 1367</td>
<td>2.75 Clear, Translucent Obscure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.120</td>
<td>48 x 1367</td>
<td>5.0 Clear, Translucent Obscure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.120</td>
<td>48 x 90</td>
<td>6.0 Clear, Translucent Obscure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blue Ridge Wire Glass</td>
<td>.120</td>
<td>48 x 11417</td>
<td>2.75 Clear, Translucent Obscure: Also Made Translucent</td>
<td></td>
</tr>
<tr>
<td>.120</td>
<td>48 x 90</td>
<td>3.50 Clear, Translucent Obscure: Also Made Translucent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.120</td>
<td>48 x 90</td>
<td>6.0 Clear, Translucent Obscure: Also Made Translucent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aklo Heat-Absorbing Unwired</td>
<td>.132</td>
<td>32 x 132</td>
<td>1.75 Clear, Translucent Obscure: Also Made Translucent</td>
<td></td>
</tr>
<tr>
<td>.132</td>
<td>32 x 132</td>
<td>3.0 Clear, Translucent Obscure: Also Made Translucent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aklo Heat-Absorbing Wired</td>
<td>.132</td>
<td>24 x 144</td>
<td>3.0 Clear, Translucent Obscure: Also Made Translucent</td>
<td></td>
</tr>
<tr>
<td>Bullet-Resisting Glass</td>
<td>.132 thru .150</td>
<td>30 x 72</td>
<td>9.81 Clear, Translucent Obscure: Also Made Translucent</td>
<td></td>
</tr>
<tr>
<td>.132 thru .150</td>
<td>30 x 72</td>
<td>19.24 Clear, Translucent Obscure: Also Made Translucent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hi-Test Safety Plate Glass</td>
<td>.150</td>
<td>60 x 74</td>
<td>3.16 Clear, Translucent Obscure: Also Made Translucent</td>
<td></td>
</tr>
<tr>
<td>TUF-FLEX* Glass Doors</td>
<td>.150</td>
<td>Up to 48 inches wide:</td>
<td>9.81 Clear, Translucent Obscure: Also Made Translucent</td>
<td></td>
</tr>
<tr>
<td>.150</td>
<td>Up to 108 inches long</td>
<td>9.81 Clear, Translucent Obscure: Also Made Translucent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FLEXCORE FOR RADIANT HEATING

Flexicore Warm-Air Panel (Radiant) Heating is a method of "radiant heating" whereby warm air is circulated in the cores of the Flexicore slabs, thereby warming the slab surface, and is then discharged into the room. The warm slab forms the "radiant heating" surface, whether it be a floor, wall, or ceiling, and heat is thereby transferred to the room. Additional and instantaneous control are obtained by discharging the warm air into the room after it has passed through the slabs. The warm air also serves to warm exterior walls and windows and thereby eliminates this source of discomfort. The use of warm air, NOT hot water or steam, allows Flexicore to retain all of the advantages of "radiant heating" as well as the additional advantages of winter air conditioning. This is not a common type of "radiant heating"—this is a SPLIT-SYSTEM. Flexicore can very easily be used as a conventional closed-system of panel heating, thereby it possesses all of the usual characteristics of a closed-system, but years of research on panel heating have proven that the closed-system has certain inherent disadvantages that only circulated, filtered, humidified, fresh, warm air can correct.
A.S.O. Goes to Nela Park (continued from page 11)

A.S.O. Convention—Cleveland, October 13 and 14

Urge ‘Architect Jones’ as Proper Salutation

PASADENA, Cal. (INS) — The Pasadena Chapter of the American Institute of Architects has adopted a resolution urging that members be addressed as “Architect Jones,” etc.

Meet your Gas advisor!

Here’s a man you’ll want to know. He’s an expert in the field of gas heating and air conditioning. Your Gas Advisor will be happy to go over building plans with you. Now that the Gas Supply is greater, our expert Advisor is a very busy man—but not too busy to see you by appointment.

Instant Cooling—Instant Heating
Ask about Servel All-Year Gas Air Conditioning.
For smart, modern commercial and residential floors it's GOODYEAR RUBBER and VINYL FLOORING. A wide range of decorator's colors and the versatility of sheet or tile form, make any floor design possible.

Color styling by Raymond Loewy Associates.

See your local flooring dealer for further information.

Use MODERNFOLD for all types of openings — small or large because it saves the space swinging doors waste. Many popular colors. Use in homes for closets, bathrooms, bed rooms, living rooms — and for all types of commercial installations. Metal framed for rigidity and strength.

*Exclusive Distributors*

NEO SALES INC.
781 THE ARCADE CLEVELAND, O.
MAin 0902

See us at Booth No. 1 — Cleveland Convention
NEW TYPE TELEVISION PROGRAM ON AIR

"Through the Kitchen Window," a new type of TV program televised in a new, specially-built studio, was put on the air here over WNBK on August 9.

Miss Louise Winslow, nationally known graduate home economist conducts the 30-minute programs every Tuesday and Thursday. The first program opened the new TV studio of the East Ohio Gas Company in East Ohio's own building at East 6th and Rockwell. All programs originate there.

Each program is a clear, easily-followed demonstration of the preparation and making of some family dish—or an entire meal. Miss Winslow will feature the more standard dishes, rather than the exotic. Her first demonstration, for instance, explained how to make a practically fool-proof angel food cake.

One of the biggest advantages of skillful cooking demonstrations by television is the ability of the audience to get close enough actually to see what is being done and what the food being prepared looks like at various stages of its preparation. The cameras televising "Through the Kitchen Window" will put every member of the audience right across the table from Miss Winslow.

The East Ohio Gas Studio, on the lower level of the company's building has been specially built for televising "Through the Kitchen Window." It is equipped with the most modern devices, including a unique covered trough in the floor which can be "tapped" at any point to provide outlets for all utilities, gas, electricity, hot and cold water, and drains. Great banks of fluorescent lights furnish the illumination for the stage, eliminating the intense heat given off by the conventional incandescent lighting of other TV studios.

Instead of the micro-wave relay customarily used to transmit a program from a distant studio to the broadcasting station, a coaxial cable has been installed between the East Ohio Gas Building and the NBC Building by technicians of Ohio Bell Telephone.

East Ohio cordially invites architects here for the Convention to come in and see television at work.

A.S.O. Convention—Cleveland, October 13 and 14

---

when planning for better living SPECIFY:

The ETLING WINDOW UNIT

"A product of Weather-Seal, Inc."

All the features of a double hung window . . . plus many more

For More Information Write

THE ETLING WINDOW - 24 Houston Street
Barberton . . . . . Ohio

SEE THE NEW ETLING WINDOW ON DISPLAY AT THE OHIO ARCHITECTS CONVENTION IN CLEVELAND OCT. 13-14

ARCHITECT [September, 1949] 21
Specify this new

AMAZING

Glazing Compound

TRU-GLAZE

1 TRU-GLAZE STAYS PLIABLE ... saves time and does a better job on wood or metal sash. Sets firmly and remains in semi-plastic condition. Popular with glaziers. Works on primed or unprimed sash.

2 TRU-GLAZE LASTS LONGER ... saves from maintenance angle because it stays put and gives extra life without cracking. Also stands up better under heavy vibration, heat and cold.

3 TRU-GLAZE COSTS LESS ... goes on fast and smooth ... lasts longer. It's easy to apply to wood and metal alike ... in summer heat or above 35°F. in winter.

4 TRU-GLAZE ... NEW ... IMPROVED . . Year after year D-P industrial glazing compounds are being specified and used for every type of commercial installation from garage to skyscraper. Now, with the development of new, improved TRU-GLAZE you can count on added savings in time and money on every glazing job.

Specify TRU-GLAZE on your next project.

OTHER D-P BRANDS INCLUDE:
D-P Putties for wood, steel and aluminum sash and special putties to architect's or Federal specifications; D-P Industrial Glazing Compound; D-P Caulking Compound; D-P Tile Cement.

DICKS-PONTIUS
Makers of Quality Putty Products for 80 Years.

GET YOUR FREE COPY of this helpful new sketchbook for ARCHITECTS, CONTRACTORS AND BUILDING MANAGEMENT ... for the first time a frank disclosure of facts about glazing.

NEW APPEARANCE — NEW VALUE THROUGH MODERNIZATION
By GEO. F. DALTON III, A.I.A., Dalton-Dalton Associates

The Cuyahoga Savings Building, formerly known as the Erie Building and before that housing the Downtown YMCA, stands at the corner of East Ninth Street and Prospect Avenue, one of Cleveland's busiest corners. Offering an excellent business location, it attracted the officers of the Cuyahoga Savings Association and was acquired when expanding business forced them to seek larger quarters.

Built during the 1890's, the building was sound and strong structurally but had become outmoded by the more recent buildings put up in the locality. The new owners saw the advisability of modernizing the building to provide quarters for the growth of their own business and to attract today's tenants, thus restoring its earning capacity.

The original exterior of the building was a buff Roman brick with a base and trim of sandstone. It was decided that, so far as the exterior appearance was concerned, the best results could be accomplished by re-facing the outside. Financial considerations, however, determined that the new facing could extend only to the sills of the third floor windows. Thus a material had to be used which would blend harmoniously with the Roman brick. In addition, the location obviously dictated that any material used must successfully withstand the dirt and soot of the area and retain its appearance with a minimum of attention. Further conditions required that the finished building should help in improving the general appearance of the locality.

The building is basically of simple design and lent itself very well to the application of a material which not only answered the above requirements but gave the building a more contemporary feeling.

After consideration of a number of materials, it was decided to use Crab Orchard stone as the major facing material with Carnellian granite for those areas where human contact could discolor and deface the building. Laid up by experienced workmen, these materials offered an almost perfect combination, providing a colorful yet dignified exterior, well in keeping with the tradition of the Cuyahoga Savings Association and at the same time, attractive to the business men who would be tenants and prospects for the offices and stores in the remaining portion of the building.

(Continued on page 26)
GIBSON JOINS U. S. PLYWOOD

Recently transferred from New York, Mr. Laurence Gibson has joined the staff of the Cleveland branch of the United States Plywood Corporation. Mr. Gibson will be on call to assist architects with any problems concerning the selection or use of plywood and allied products made and distributed by the firm. Such cooperation is welcome, as it is an aid to design and leads to the development of improved materials.

A leader in research and development for "The Best of Everything in Plywood," U. S. Plywood now has available a line of allied products which include Armorply, Weldwood Fire Doors, Weldwood Mouldings, and Weldwood and Armorply Honeycomb.

Mr. Gibson's background includes architectural training, experience with the Architect's Samples Corporation and Rockefeller Home Center in New York, and four and a half years service with the Corps of Engineers, U. S. Army during the war.

LAURENCE GIBSON

CLEVELAND CHAPTER STANDING COMMITTEES

Standing Committees:
Fellowship—to remain as is for the current year—Robinson, Chairman, Hays and Guenther.
Practice of Architecture—Szendy, chairman, Walsh, Scott, and Vrooman.
Relation to Construction Industry—Geo. R. Harris, chairman; Barber, Horn, and Woodward.
Education and Registration—Holstein, chairman; Field, (Maier) Ciresi, and Clyde Patterson, Jr.
Public Relations and Information—Manki, Willits, Riddle, Voinovich, Anthony Gattozzi, and Fenton. No chairman selected.
Allied Arts—Payer, chairman; Ockere, Burrows, and Oley.

Special Committees:
Program—Field, Chairman; Hart, Small, and Copper.
WRU Fund—Not appointed.
Student Chapter Advisory—Ceruti, chairman; Little, Canute, and Story.
Membership—Not appointed.
() To be appointed if others will not serve.

A. S. O. Convention—Cleveland, October 13 and 14

New Permanent Beauty...New Value
WITH
CRAB ORCHARD STONE
RUGGED, WEATHER RESISTANT
RETAINS ITS BEAUTY THROUGH THE YEARS

CRAB ORCHARD STONE
MARBLE • GRANITE
TERRAZZO • TILE • SLATE

OVER QUARTER CENTURY EXPERIENCE
IN PERMANENT MATERIALS

The Interior Marble & Tile Co.
4300 Euclid Ave. • Henderson 1660 • Cleveland 3, Ohio
Architect a Mind Reader  (Continued from page 12)

the other fine arts—like music, painting, sculpture, the dance, the play, the story, the poem. His building in addition to being beautiful must keep out the rain, admit the sun, be warm in winter and cool in summer. It must be what you expected it to be, too. He must have read your mind and put into definite shape your own pet wishes. Your ideas are jumbled together. He ought to arrange and harmonize them. He should make up his mind which ones are impractical and mistaken and then persuade you to discard them. (That may be not too easy to do.) When you tell him that you must have purple shutters and not red ones, he must read your tastes more clearly than you do yourself. He must know whether when they are finally hung you will say to him, "Why didn't you insist on red shutters? I paid you to give me your best service and judgment and you gave in to me when you shouldn't have done so."

You see that you can't succeed with your architect without what the law calls "a meeting of minds." The first obstacle to this is your own bashfulness and timidity—your I'm-afraid-if-I-speak-to-the-cook-she'll-leave attitude. When you employ an architect you employ him for whatever services you need and no more. Let us say it is for advice on matters related to a new house for your family. He agrees to advise. You agree to pay him for his advice. There are two ways in which he might betray his trust. On the one hand he might try to dictate to you rather than to understand and be governed by your wishes. His justification to himself would be: "This person doesn't know as much as I do about architecture. I must decide what is best and insist on its being done. My client will thank me in the end." This is not the proper attitude toward an intelligent client.

On the other hand he might go too far the other way and give you what he sees that you expect. He is sometimes tempted to follow that easy path and collect his fee for just being an echo of his client's notions. Doctors do the same thing when they solemnly advise a patient not to do anything that she doesn't want to. It would be bad for her health. (Five dollars, please!) The right attitude is neither of the two just described. If he understands his profession your architect will set about to discover your needs and your desires. He will

(Continued on page 26)
ANTHONY GATTOZZI, A. I. A.

ANTHONY GATTOZZI, A. I. A., Commissioner of Architecture, City of Cleveland, Ohio, Registered in Ohio, No. 1578.

Known as "Tony" to his many friends, Mr. Gattozzi received his early education in Cleveland, attending Collinwood Junior High and graduating from Glenville High School. While in high school he began architectural training in the office of the late Bloodgood Tuttle, Architect, who encouraged and urged him to study architecture. He attended and graduated from the University of Pennsylvania. After graduating in 1929 he continued the study of architecture, until 1939 while holding a minor position at the University of Pennsylvania.

His public career started in 1931 when he was appointed, under civil service, to the position of senior draftsman in the Division of Architecture, City of Cleveland. Thereafter his interest in municipal work grew through the years along with a happy association with Herman Kregelius his predecessor. His public service was interrupted by the war years (1941-1945).

He was employed from 1941 to 1943 by Albert Kahn, Architects and Engineers, Detroit, where an excellent opportunity was extended him to gain varied experience in the field of industrial architecture.

He returned to Cleveland in 1943 and was employed by the Austin Company for two years.

He returned to public service in the fall of 1945 when he was appointed assistant Commissioner of Architecture. Two years later he was appointed Commissioner of Architecture by Mayor Thomas A. Burke.

Duties of Commissioner of Architecture are to provide architectural services for the building requirements of the various departments of the City of Cleveland and to coordinate the work of private architectural firms hired to supplement the staff of the Division of Architecture. The present staff consisting of eighteen employees is very much occupied with the planning of rehabilitation work and new projects scheduled for construction in 1950 and 1951 under the Capital Improvement Program which is expected to extend through 1955.

Considerable progress has already been made in the building programs of the various departments. Three new fire stations, new quarters for the mounted police, expansion of City Hospital facilities, a new Health Center and numerous park and recreational buildings are some of the projects completed during the past three years.

A. S. O. Convention—Cleveland, October 13 and 14

For 90 years the Johns-Manville trade-mark has been a symbol of quality in Building Materials

Johns-Manville Building Materials have established a reputation for quality and enduring service over the years. You insure lasting client satisfaction when you specify any of the materials listed below.

ACOUSTICAL MATERIALS
TERRAFLEX FLOORING
TRANSITE MOVABLE WALLS
ASPHALT TILE FLOORING

ASBESTOS CORRUGATED TRANSITE
INSULATING BOARD, PANELS AND PLANK
ROCK WOOL HOME INSULATION
ASBESTOS FLEXBOARD

BUILT-UP ROOFING
ASBESTOS ROOFING SHINGLES
ASBESTOS SIDING SHINGLES
ASPHALT SHINGLES

For further information call Johns-Manville — MAin 5151

Johns-Manville
45 PROSPECT AVE., N.W. • CLEVELAND 15, OHIO
New Appearance  (Continued from page 22)

The interior of the building was remodeled on all floors and provided with new lighting. Modernized elevators insure easier, faster traffic in and out of the building.

The offices and space of the Cuyahoga Savings Association now occupy four bays on the first floor, Prospect side, and a large part of the basement. The banking area is spacious, well lighted and comfortable. Officers quarters open directly off the main banking room assuring easy access for consultations and conferences. The entire area is air conditioned and lighted with recessed fluorescent lights. A complete electric kitchen is provided for employees in the basement. Piped in music, a banking innovation, adds to the enjoyment of customers and employees and indicates a trend in the provision of easier, more friendly relationship between the bank and the customers.

Architect a Mind Reader  (Continued from page 24)

find this one of his greatest interests. As the portrait painter studies you in different lights with his perceptions keenly stimulated to read your character in your face and to paint a speaking likeness, so your architect will make himself sensitive to your tastes and wishes and will congratulate himself upon his opportunity to enter into your life and thoughts a bit so that he can interpret them in terms of architecture, and develop your understanding of your own vague and partial desires into a house that will fit you and your family and that will truthfully declare in wall and roof and chimney that it is your home, the outgrowth of your particular character and spirit, in which you will be at your best and happiest.

Just a word here about the importance of setting a hard task for the architect. Do you know that artists are at their best in a society which is exacting and dis-
criminating, and among friends who will not admire anything but the best work? Fine public taste is the creator of fine artists. When you listen to music or go to see a picture or a play, you are patron of the arts. Your choice will help to make or mar the art of your age. So when you hire an architect don't overlook the fact that you are a patron of architecture. Demand the best, expect the best. And, of course, this means that you must have formed some judgment of your own as to what is good and what bad. Have your own ideas. Let your architect read your thoughts so that he may have a definite theme for his composition. Otherwise he will be designing just another house.

Now a friendly warning about elements in successful architecture. One is the environment or the background, and the second is the building itself. These two are so interdependent that neither one is a source of great pleasure alone. They must harmonize. If you have bought land and wish to build, there are a thousand beautiful houses that will lose their charm by being built on that land to one beautiful house that will fit the surroundings and enhance them. No one thinks enough of this. Neglect to realize this is the cause of myriads of disappointments. Why isn't the house satisfactory? What is wrong? It is copied from that darling house in Duxbury. What can be the trouble?

It may be placed wrong on the land.
It may be graded or planted unsympathetically.
It may be brick when it should be wood.
It may be square when it should be long and narrow.
And so on.

In spite of all its own perfection it is ruined by its setting. A much less charming house but of different proportions might in this location produce more sense of charm.

Take your architect into your confidence before you buy if possible. His preliminary advice, based on his varied and long experience of failures and successes, will cost you nothing extra and may be of first importance.

I cannot drop this vital consideration of environment without another admonition. You are New Englanders, most of you, and were the architect to try to read the mind of New England is a whole what would he see in the crystal sphere? He would see a people busy
MODERN BUILDING

Calls for

MODERN HEATING

and that calls for

Every COR-O-AIRE that you specify has a spectacular story of modern heating to help you plan. Unmatched for comfort, economy, COR-O-AIRE savings on heating bills help make home payments.

Let us show you how COR-O-AIRE can aid in your building project.
For information or quotation call

AMERICAN UTILITIES CORP.
5309 Euclid Ave. CLEVELAND EXpress 0711

and anxious about many things and carefully unaware of a rich inheritance waiting to be enjoyed. And this is the heritage: a countryside and a seaside of unparalleled charm for homes, where the lakes and the forests and the streams and the islands, the rocky headlands and the sandy coves all conspire to make life worth living; where the little villages are exerting upon strangers without our gates an irresistible lure to come and settle; but where the mind of the New Englander is scarcely aware of how easily and how quickly all this seductive landscape can be ruined, and these beautiful villages spoiled. The architect sees that this danger is not fully appreciated and this source of revenue not safeguarded as it should be. Wherever you turn the danger is there. Even if you find a perfect spot to build upon, you will be anxious about the future preservation of the surroundings. Satisfy yourself, with your architects’ help in regard to zoning and building laws, community stability, schools, and neighbors.

Remember that you can almost always count upon enlarging your house, seldom your land. If you buy a lot upon a partly developed street everything looks roomy and open. Five years later, with all lots built upon, you find yourself sandwiched in between a neighbor’s kitchen window on the east and a noisy piazza on the west, with no peace or privacy.

Get enough land, even if you have to build only half a house to begin with. Bear in mind that you may some day be forced to sell your house. It will not sell as a book might sell in a bookshop—because it is a good book. The book is a detached article. The house is one of a group on a street or in a given neighborhood. A large part of the value of your house—don’t mistake it—is in the value of the houses in the immediate vicinity. If they are stupid and drab, your chances are not so good. If they are bright and fascinating, your house is sold already.

For a complete revolution has taken place in the real estate market. Millions are being spent on eyeservice in renovating and modernizing individual houses, in studying and laying out carefully balanced developments for new streets, circles, groupings of one kind and another. The day of quantity value is gone. Quality governs now, and quality in a home involves not your own house alone, but all those that belong with it in its neighborhood grouping.

And one more caution! Do you think the value of your investment in a house ends there—with the neighborhod? Far from it! The neighborhood derives its stability and the marketability of its houses from the character of the town or city of which it is a part. In some towns there are no houses for sale. It is almost impossible to get in. Those towns are worth examining. In other towns the For Sale signs are as numerous as the hydrants and street lights. Be careful here. There may be a reason.

In some towns there is a certain esprit-de-corps—a local pride, and it shows in the architecture. A neat village green, orderly groups of white cottages behind their fenced lawns, an air of independence and yet of relatedness. You know these towns. You rise into raptures when you pass through them. They are what makes New England New England. Their names recall the quiet beauty and charm of places you long to live in—Sharon, Washington, Litchfield, Old Lyme, Canterbury in Connecticut; Stockbridge, Northfield, Ashfield, Petersham, Bolton, Yarmouth, Cohasset in Massachusetts; Hollis, Oxford, Newfields in New Hampshire. You know the types—and whether you can live in such a

(Continued on page 30)
which is opposite to the big window the use of the Modernfold door also makes possible a separation of those coming to the service from the casket itself until the service is to be started. The casket may be kept privately shielded behind the Modernfold door and exposed only when the service is to start. Similarly, when the service is finished the door may be drawn again, and the crowd ushered out through the foyer without the need of a profession before the casket. The family, at the same time, may leave in complete privacy through the main hall at the other end of the building.

This other end of the building, in itself, offers a compact flexibility that makes it serve many uses. From the main entrance, which serves as the family entrance, direct access is given to the entrance hall, to the office, which is at the corner of the building, and along the hallway in succession, to smoking and retiring rooms, to the preparation room, and to entrances from the garage.

Half way along the main hall a narrow portion, which reflects the location of the casket alcove in the service room, a set of Modernfold doors may be opened after the service, and the casket is disclosed to have been resting in the hallway area. Its removal along the hall to a doorway that leads to the garage thus makes it possible to place the casket and flowers in the funeral car practically at the same level and under cover.

A large open porch 8 feet by 50 feet along the side of the home, covers the entrances both to the hall and foyer. As a precaution steam pipes have been placed in the floor of these entrances—and the family entrance also—to melt ice and snow.

From the office, located in a corner of the building just inside the main entrance, a rear door from the office leads to the garage or living quarters. This room is done in knotty pine and contains a large stone fireplace.

The preparation room is placed at the end of the hall leading to the garage and permits removals or loading of the casket coach in the garage. A large glass block window provides daylight illumination while preserving privacy. The floor and walls to the ceiling are done in clay tile and a floor drain permits the room to be hosed.

The garage forming the rear of the home is 46 by 48 feet and has a capacity of six cars. There is at least four feet between each car which permits easy access for cleaning and loading. Each car has a nine-foot entrance door which makes it possible to drive through the garage at three points.

Private living quarters are located on the second floor over the office, restrooms, etc. They are accessible through a private rear entrance by the office and comprise a large living room with stone fireplace, two bedrooms, bath and kitchen with an automatic laundry. An interesting feature of the living room is a ten foot pic-
A public address system carries the service through eight loud-speakers to all parts of the building. An intercommunication system provides contact at seven points throughout the building as well as at two entrances.

A new Hammond organ provides music before and after the service and has met with unexpected enthusiasm.

The heating system provides for a complete change of fresh air every 15 minutes in the service rooms.

"We had been concerned," said Philip Mallory, "about making a move from our location of over twenty years and the possibility of acceptance on the part of our older and more conservative families. Any doubt was dispelled by the great interest shown. The move was made with no inconvenience whatsoever and note with interest that every funeral has shown a larger attendance than was expected. Perhaps the belief that more room and better accommodations are provided will encourage friends to come who might otherwise have stayed at home. Every day we receive visits from those who want to go over the home—and the people of the community point it to it with pride. We are grateful for this reaction and feel that it justifies the effort we have made. The amazement of the out of town people is profound and they indicate that it surpasses anything they have seen. Of greatest importance is the satisfaction expressed by the families we have served. Without exception they say that they will always carry a beautiful memory picture of the service and the efficiency and quietness with which it was conducted.

"We are particularly pleased at the enthusiastic interest on the part of fellow funeral directors. Many keep coming in to get ideas which they might use in their own establishments. Their opinion seems to be that we have one of the finest funeral homes in the state. This is of course exaggerated but it does indicate that we have planned pretty well and are providing a home which will meet the requirements of the future.

"We might make this one comment which results from our observations of recent trends: during the past few years we funeral directors have opened our homes to the public until by far the great majority prefer to use them. Facilities which we once thought excellent are no longer adequate. The public expects every convenience and the time is coming when a remodeled home will not do the job. In assuming the responsibility of building this new home we feel that we are getting in at the 'beginning of the parade' instead of trailing along behind."

Editors Note: Incidentally the Modernfold doors were furnished and installed by Neo Sales, Inc. Cleveland, Ohio.

A.S.O. Convention—Cleveland, October 13 and 14

Architect a Mind Reader (Continued from page 28) village or not, the ideal is with you and whatever place you pick can have the makeup of a future New England neighborhood.

And so, in a word, your problem is one of care and foresight in the selection of your location, and of tact and patience in dealing with your architect if you would finally move into the house of your dreams.
WHAT PRICE BUILDING?
By EDWARD A. WEHR
Dean of Builders Defends Architects, Engineers
Building Trades—and Builders

Baltimore-born Contractor Edward A. Wehr is one of the nation’s few builders with a degree in architecture—from Maryland Institute. Son of a brickmaker, Wehr grew up amidst talk of building, determined in his teens to be the best of builders. He learned construction the hard way by working in his father’s brick plant, by becoming a proficient carpenter, and later by laboring in a structural steel and bridge shop before being promoted to the drafting room. A trip to Europe rounded out his building education by familiarizing him with England’s famed parish churches and the Continent’s incomparable cathedrals.

Arriving in Pittsburgh for a six month’s study of steel fabrication in 1901, Wehr remained 47 years to become one of the city’s outstanding builders of notable churches. After brief experience with a local reinforced concrete firm and a personal venture into low-priced home building, Wehr discovered that economy building was not his dish. Concentrating on quality building alone, he formed a partnership with Howard Hager, then building St. Paul’s Cathedral, and was soon at work on Calvary Church for Cram, Goodhue and Ferguson. The pattern of his career was set. In addition to noted churches in New York, Cleveland and other cities, Wehr built Pittsburgh’s First Baptist, Mt. Lebanon Presbyterian, the Nativity, German Evangelical Lutheran, Holy Innocent and Waverly Presbyterian churches. Delicately lovely, The Cochran Memorial Methodist Church of Dawson, Pa., was also built by Wehr.

No subject of general public interest in recent years has been less understood or more misrepresented than the construction industry. This sprawling collaboration of architects, engineers, builders, general contractors, sub-contractors, and the building trades with their staggering variety of skilled craftsmen, must be made clear to the public if the American people are to appreciate the magnitude and importance of this most vital of our national industries.

During the present demand not only for housing but for all types of construction, the shortage of skilled mechanics may make it seem desirable for the building trades to put in more working time. But shorter hours and a shorter work week are the interminable goals of organized labor, and the building trades have been highly organized now for years. Short hours, instigated of necessity during depression years, are today the accepted practice of the industry. It is not likely that the trend will be reversed.

Increased production is generally thought to be the clue to today’s high building costs, but it must be remembered that, as a whole, the building industry is still a craft. It is not streamlined for precision. There are approximately 27 separate agreements with the various building trades necessary to any building operation and these agreements must be negotiated annually, while in most other large industries such as steel, coal and automotive, it is necessary to negotiate only one agreement. Industry-wide bargaining may be the answer.

Large consolidated industries have more resources with which to negotiate and influence public opinion


Catalogs, acoustical analyses, recommendations, estimates promptly supplied on request.

The George P. Little Company, Inc.
Cleveland • Pittsburgh
Akron • Columbus • Toledo

ACOUSTI-CELOTEX
Sound Conditioning

HUBBELLITE
THE SANIGENIC FLOOR SURFACING

Can be applied to any old or new concrete or wood floors that are structurally sound.

It inhibits the growth of molds and fungus, especially the fungus that causes athletes foot, drains off static electricity before it can build up to a sparking potential, and is a cockroach repellant.

HUBBELLITE should be used in kitchens, locker and shower rooms, toilets, operating rooms, or any area where sanitary features are desired.

BENJ. R. DRAYER
44 W. Longview Ave.

COLUMBUS 2, OHIO
LAwnsdale 9232

ARCHITECT
Vermiculite Concrete

ZONOLITE

ZONOLITE COMPANY

LIGHTWEIGHT AGGREGATES.

Send for valuable booklet, "ZONOLITE VERMICULITE INSULATION AND LIGHTWEIGHT AGGREGATES."

With Zonolite Concrete Aggregate your radiant heat jobs will assure rapid heating, better temperature control, and important fuel savings. Heat loss into the ground can be greatly reduced if you follow these simple steps:

On a level well-drained base prepare a 5 or 6-inch fill of coarse stone or gravel, tamped smooth and firm. On top of this, lay a moisture barrier of one or more saturated felts.

Pour 4 inches of Zonolite concrete and allow it to set. Zonolite Aggregate replaces sand, in proportions of 1/2 bag of Zonolite Aggregate to 1 bag of portland cement, providing up to 16 times the insulating value of ordinary concrete.

Next the radiant heat pipes or ducts are placed, and ordinary concrete poured to a thickness of at least 2" over the top of the pipes. A 2 x 8 sill insulates against lateral heat loss and serves as a carpet nailer.

Write us for full details on any concrete or plastering job where insulation is important. Send for valuable booklet, "ZONOLITE VERMICULITE INSULATION AND LIGHTWEIGHT AGGREGATES."

ZONOLITE COMPANY

14300 Henn Ave., Dearborn, Mich.

OFFICIAL HEADQUARTERS
IN CLEVELAND
FOR
ARCHITECTS SOCIETY
OF OHIO
CONVENTION

October 13 and 14, 1949

Hotel Allerton
EAST 13th AND CHESTER
GEORGE BEALL, MANAGER

32 [September, 1949]
the real estate operator is not so ignored. When the building is finally up for sale, out pops a prominent sign announcing, "This Building Sold by Rudolpho Bumblewit." The architect's fee was based on the cost of the building. The contractor may have lost his shirt on it, due to changing conditions or increasing prices, but Mr. Bumblewit's commission is based not only on the value of the building alone, but on the value of the land and the building. Often he has previously received a commission on the sale of the land.

Similarly, a large and important bridge, tunnel, or other engineering feat is completed and turned over to the use of the citizenry with never a mention of the engineers, architects, builders, nor the skilled workmen, some of whom may have lost their lives in the performance of duty. But when the project is unveiled, a handsome sculptured plaque is embedded at the approaches, acquainting posterity with the politicians under whose benevolent administration the work may or may not have been conceived.

In recent years a development has occurred in the construction industry which bears careful watching. It is the slow abrogation by architects, engineers and builders of their traditional role as the representatives of the owner as well as the designers of the plans and specifications governing conditions under which contract construction work is to be performed, to lawyers, business managers, financial consultants and other assorted laymen who know little or nothing about the process of building. These outsiders often insist upon inserting in specifications clauses that are patently unfair to the builder. The Standard Documents of The American Institute of Architects, including contract forms which have been approved by the Associated General Contractors of America, Inc., represent the best thinking of the architectural profession and the contracting industry and have stood the test of time. Departure from the provisions of the Standard Contract between Owner and Contractor only leads to complications and often increased costs.

Unlike painter, sculptor, actor and writer, the architect is seldom given the publicity and appreciation which his essential work deserves. It is safe to say that perhaps not a handful of Pittsburghers can name the architects of such Pittsburgh landmarks as Carnegie Museum, Mellon Institute, or the Cathedral of Learning. But in building, a faulty or bad design by the architect, or poor construction by the engineers or builders, is never buried and forgotten. The work stands as a discredit to those responsible for it the rest of their days.

In today's highprice market, prospective home owners often complain about the number and costs of "extras" they encounter in building. Often this can be directly traced to the client's false economy in not engaging a reliable architect's services for the preparation of complete plans and specifications, followed by the acceptance of a reliable builder. An indefinite agreement with a contractor who says he requires no architect's plan and who is expected to chisel in some mysterious way on material and labor for the client, is a mistake. Chiseling works both ways, unfortunately. An inexperienced or unreliable contractor working without architectural supervision is often more expensive in the long run than many so-called 'extras.'

The layman today is also critical of the specialization that has grown up in the building industry, due primarily to our highly organized trade unions. Often the layman does not realize that even the smallest job in building must be done, if done well, by a craftsman who has spent years in poorly paid apprenticeship, more
years gathering valuable experience and mastering his special tools and equipment. Often the mechanic, plumber, electrician, and welder must pass a rigid examination and be legally registered. Their work must stand the approval of city inspectors. Home owners who rely on a "handy man" or jack-of-all-trades, may find themselves later with houses that burn to the ground or with plumbing so faulty that the family’s health may actually be impaired. The specialization of work that is necessary in building is not generally carried to excess any more than in most professions.

And finally, a builder is frequently asked why he or any rational human being will start and continue permanently in this rather complicated work which is rarely rewarding and not always remunerative. Perhaps the answer lies in a speech which Benjamin Fairless recently delivered. "Success isn’t a matter of position or possession," said Mr. Fairless, "It’s a frame of mind, feeling of fulfillment, an inward recognition of a job well done or a worthwhile service rendered."

A. S. O. Convention—Cleveland, October 13 and 14

HELP!

There came a frantic ring over the phone at police headquarters and a voice said: "There’s a burglar in Miss Spinster’s bedroom at number 2313 Blank Street. Send the police at once, for heaven’s sake!"

"All right," answered the sergeant. "Is this Miss Spinster speaking?"

"No," came back the anguished voice, "this is the Inn Manager."

"Specify Mid-West for Products of the Best"

The Mid-West Acoustical & Supply Co.
SOUND CONDITIONING ENGINEERS & CONTRACTORS
General Offices & Warehouse: 1812 St. Clair Ave., Cleveland 14
See us at Booth 20—the A.S.O. Convention

The best of everything in Plywood

- PLUS -

Armorply* Flexwood* Micarta*
Weldwood* and Mengel Doors
Weldwood* Fire Doors

U.S. PLYWOOD CORP.

Tekwood* Protekwood*
Firzite* Satinlac* Adhesives
Weldwood* and Armorply* Honeycomb
Weldwood* Moldings Kalistron Checkwood

SOME POPULATION TRENDS AND THEIR IMPLICATIONS
By PHILIP M. HAUSER

THE FACTS

In the short span of about 150 years the United States has developed from a small agricultural, relatively isolated nation to a leading world power, a highly industrialized and urbanized nation. This transition was greatly influenced by population factors and, in turn, has had a great affect on population trends.

Perhaps the most important single population trend in the United States is that relating to total growth. In the 158 years since the First Census of the United States in 1790, the population of this nation has increased from less than 4 million to over 148 million—a thirty-seven fold increase. During the 19th Century, the population of the United States, primarily through natural increase, although substantially assisted by immigration, grew at a rate unprecedented in human history for as large an area over as prolonged a time. The population doubled every 25 years from 1790 to 1865—three times. It doubled again in the 35 years between 1865 and 1900. Since 1900 there has been a perceptible decrease in the rate of population growth. We shall have doubled again by 1950, but this time over a period of 50 years.

The prospect is definitely for greatly decelerated rates of total growth. The baby boom which has accompanied war and prosperity since 1940, has resulted in a considerable population increment, but it is a temporary spurt. The longtime downward trend in the birthrate, which resulted in a two-thirds decrease in fertility between 1800 and 1940 has reached a point where a stationary or even declining population can be foreseen by the close of this century.

Even more dramatic than the increase in the total population of the United States has been the increase in...
the urban population. The 200,000 city residents in the
U.S. in 1790 were succeeded by 74 million city dwellers
by 1940, a three hundred seventy-two fold increase. In
1790, only 5% of the population lived in cities. By 1940,
this proportion had risen to well over half—about 57%.
The population was even more concentrated by 1940
than these figures suggest, for 140 metropolitan districts
contained almost half of the total population in 1940.
With the deceleration in total population growth, it
may be anticipated that the rate of growth of population
in our cities will also decline. Many of our cities must
prepare for stationary, or even declining populations
in the coming years.

Although the population of the United States has
continuously become concentrated in a relatively few
urban centers, population distribution in these centers
has become more and more decentralized. Population
aggregations have overflowed city boundaries so that the
term "metropolitan district" more accurately describes
urban agglomerations than does the official designation
"city." Within the metropolitan district, the population
for decades has been emptying at the center and flowing
outward to the peripheral area of the city and to sur­
rounding suburban territories.

Changes in the rates of total population growth and
in urban population vary by geographic region within
the United States. The South and the West continue
to enjoy relatively large population increases, while the
northeastern and northcentral portions of the country
have slower population growth and will soon experi­
ence stationary or even declining populations. Present
differentials in rates of growth among the regions of
the United States may be expected to continue for some
time.

The declining birth rate, together with increased ex­
pectation of life, has had important effects on the aver­
age age of the population. In 1880, the average person
in the United States was about 16 years old. By 1940,
he was 29 years old. By the end of the century, he will
be 37 years old.

The number of families in the United States is in­
creasing more rapidly than the total population. This
apparent paradox is accounted for by the decreasing size
of the family. Between 1890 and 1945, for example, the
population of the United States about doubled (in­
creased from 63 to 144 million), while during the same
period the number of families tripled (increased from
12.7 to 37.5 million). The rate of growth of families
will for some decades exceed the rate of growth of pop­
ulation.

THEIR IMPLICATIONS

The basic population trends sketchily outlined above
have important implications which will be examined
with special emphasis on matters of interest to architects.

The rapid growth of population in the United States during the 19th Century provided a major outlet for capital investment. It has, in fact, been estimated that as much as half of all capital formation in the U.S. during the last half of the 19th Century was attributable to population growth. Moreover, rapid population increase has meant rapidly increasing markets to American industry and business, including construction. The declining rate of total population growth and the prospect of a stationary or even declining population will profoundly affect the American economy. These inexorable population phenomena will necessitate new outlets for capital investment and the finding of new markets, if American business and industry is to continue to expand.

It is to be emphasized that a stationary or declining population does not necessarily mean a stagnant economy. There are many potentially rich untapped markets within the United States and abroad. And there is an almost unlimited capacity for any given population to continue to raise its level of living. The prospect of a stationary or declining population can mean a stagnant economy, but not if American business reads the handwriting on the wall and makes the necessary adjustments.

Changing rates of population growth have direct effects on the consumption of many goods; for example, given fixed food habits, a declining rate of population growth would mean a declining rate of consumption of salt and bread. In this connection, the difference in the rate of growth of total population and in the rate of growth of families has considerable importance to architects and to all industries whose products are consumed by the family rather than the person. The social need for dwelling units is more accurately measured by the rate of growth of families than by the rate of growth of total population. Thus, for some decades to come, the need for new dwelling units will continue to be relatively high even though the rate of total population growth will be declining. This is particularly true in the light of accumulated deficit in the construction of dwelling units relative to new family formation. It is estimated that from 1930 to 1948, 6.9 million new non-farm dwelling units were constructed, while there was a net increase of 10.6 million new, non-farm households. Thus, during this period alone, there was a cumulative deficit of 3.7 million non-farm dwelling units. From a social standpoint, the U.S. will need about 12 million non-farm dwelling units and about 2 million new farm units between now and 1960. This assumes a minimum of replacement of substandard units. Up to 20 million dwelling units would be more the figure, if the elimination of the worst of our substandard housing were set up as an objective.

The war time bumper crop of babies has important implications for many elements of our economy, including architects. The bumper baby crop between 1940 and 1948 means increasing enrollment in the elementary schools until a peak is reached in 1957. Elementary school enrollment in 1957 will be 46% above the level in 1947. Such an increase in enrollment must nec-

THE MEDAL BRICK & TILE CO.
"SINCE 1872"
Face Brick and Common Brick
ALSO
"AGECROST OLDSTYLE"
The Architect's brick
WOOSTER, OHIO PHONE 127

THE KUHLMAN BUILDERS SUPPLY & BRICK COMPANY
919 NICHOLAS BLDG.
TOLEDO, OHIO

ART IRON & WIRE WORKS, INC.
WAREHOUSE • Steel • FABRICATORS
860 CURTIS ST.
ARCHITECT

THE STANDARD EXCAVATING Co.
MODERN EQUIPMENT OF THE FINEST TYPE.
SHOVELS, CRANES, DRAG-LINES, TRUCKS,
BULL-DOZERS. EXPERIENCED OPERATORS.
2493 E. 20th St. – MAin 5288

THE DAVIS-SIEHL Co.
Fence & Ornamental Iron Specialists Since 1882
4032 HAMILTON AVENUE, CINCINNATI 23, OHIO

Ornamental Iron
Handsome wrought iron to enhance the beauty of residential and commercial architecture, interior and exterior. Stock and special designs. Also residential and commercial FENCE of all types, cellar doors, gratings, railings, etc. Write for FREE CATALOGUE.

THE MEDAL BRICK & TILE CO.
"SINCE 1872"
Face Brick and Common Brick
ALSO
"AGECROST OLDSTYLE"
The Architect's brick
WOOSTER, OHIO PHONE 127

THE KUHLMAN BUILDERS SUPPLY & BRICK COMPANY
919 NICHOLAS BLDG.
TOLEDO, OHIO

ART IRON & WIRE WORKS, INC.
WAREHOUSE • Steel • FABRICATORS
860 CURTIS ST.
ARCHITECT

THE MEDAL BRICK & TILE CO.
"SINCE 1872"
Face Brick and Common Brick
ALSO
"AGECROST OLDSTYLE"
The Architect's brick
WOOSTER, OHIO PHONE 127

THE KUHLMAN BUILDERS SUPPLY & BRICK COMPANY
919 NICHOLAS BLDG.
TOLEDO, OHIO

ART IRON & WIRE WORKS, INC.
WAREHOUSE • Steel • FABRICATORS
860 CURTIS ST.
ARCHITECT

THE MEDAL BRICK & TILE CO.
"SINCE 1872"
Face Brick and Common Brick
ALSO
"AGECROST OLDSTYLE"
The Architect's brick
WOOSTER, OHIO PHONE 127

THE KUHLMAN BUILDERS SUPPLY & BRICK COMPANY
919 NICHOLAS BLDG.
TOLEDO, OHIO

ART IRON & WIRE WORKS, INC.
WAREHOUSE • Steel • FABRICATORS
860 CURTIS ST.
ARCHITECT

THE MEDAL BRICK & TILE CO.
"SINCE 1872"
Face Brick and Common Brick
ALSO
"AGECROST OLDSTYLE"
The Architect's brick
WOOSTER, OHIO PHONE 127

THE KUHLMAN BUILDERS SUPPLY & BRICK COMPANY
919 NICHOLAS BLDG.
TOLEDO, OHIO

ART IRON & WIRE WORKS, INC.
WAREHOUSE • Steel • FABRICATORS
860 CURTIS ST.
ARCHITECT
Well Known...

**EQUIPMENT**
- International Power Units
- Koehring Cranes
- Towermobiles
- Kwik-Mix Mixers
- Chicago Pneumatic Tools
- C. H. & E. Hoists
- Broderick & Bascom Wire Rope
- Gorman-Rupp Pumps
- White Kettles and Vibrators

**SUPPLIES**

**SALES**
THE W. W. WILLIAMS CO.
815 Goodale Blvd. 18301 Brookpark Rd. 914 Main St. 1260 Conant St.
Columbus 8 Cleveland 11 Cincinnati 2 Toledo (Maumee)

**PARTS**

**SERVICE**

---

Essentially mean an increase in school facilities in most communities of the nation. Moreover, it is to be remembered that the peak in high school and college enrollments will not be reached until after 1960, as a result of the war time boom in babies.

The decelerated rate of population growth in our cities and continued population decentralization will profoundly affect both land values and construction in urban United States. It may safely be anticipated that the problems posed by blighted areas in our cities will come more prominently to the forefront of public attention. The various alternatives for reclaiming areas of blight will be increasingly studied and the decisions reached will, in part, no doubt, be affected by considerations of the atom bomb. There will undoubtedly be increasing pressure to accelerate the decentralization of our cities and to avoid concentration of industry, businesses and residences to decrease our vulnerability in aerial warfare.

Differentials in regional population trends point to important differences in economic activity, including construction. Although the predominant portion of the United States domestic market will remain in the North, it may be anticipated that, for some decades, expansion will be more rapid in the South and in the West. Stationary and even declining populations will first become evident in the northeastern portion of the country and gradually affect the northcentral, southern and western areas. The western and southern areas of the United States will be able to study and profit from the experience of the North in adjusting to stationary and declining populations.

As a result of the declining birth rate and death rate, the population of the United States has been aging and will continue to age. The population phenomenon is among the many that have interesting implications. The need for additional school facilities between now and the sixties will, in subsequent years, be transferred into an excess of school plant which may call for some form of useful conversion. The increasing average age of the population will undoubtedly affect recreational activities, which should have some relevance to the work of the architect. There will probably be decreasing needs for perambulators, nursery schools, baseball bats, footballs, basketballs and for related facilities, and increasing needs for wheelchairs, golf clubs, card tables, chess boards, spectators' seats and rest homes and convalescent institutions.

Without question the most important implication of our national population trends are those relating to national security. This is a particularly appropriate topic to consider in light of the present conditions. In facing the prospect of a stationary or a de-
clining population, the U.S. is confronting a prospect common to the nations of northern and western Europe. The nations which were the first to become industrialized and to contribute to the building up of what we know as Western civilization are the nations which experienced the most rapid population growth since the 17th Century—a growth which has now almost spent itself. It is significant that all of the nations which are likely to be signatories to the Atlantic Pact are in this category.

In contrast, other areas of the world will continue to experience rapid population growth or potentially possess the capacity for such growth. Most of the nations of southeastern Europe, including the U.S.S.R., will continue to grow rapidly, while the Western countries, including the United States, have stationary or declining populations. Thus, between 1940 and 1970, for example, while the U.S. population is increasing from 132 to about 160 million, the U.S.S.R. is likely to increase from 174 to about 250 million.

Obviously, military potential is by no means entirely a function of manpower. But among nations of equal industrial development and efficiency, manpower may well be a decisive factor. In a troubled and tense world, the security and future of individual nations may in large measure depend on their national strength. And other things being equal, the size of the population will continue to be an important factor in the power equation. To the extent that population numbers remain a factor in international power and in international policies, the American people have every reason to be alerted to differential population trends and their implications.

The deceleration of population growth or a declining population may have dire consequences in an atomic age in which the power released by fission is to be used for purposes of horrible destruction. In an atomic age in which the power of the atom is utilized for the benefit of mankind to prolong life and to raise levels of living, the prospect of decelerated growth or a declining population need have no dire consequences. On the contrary, in an atomic age of peace and abundance our population prospect is such as to assure increased productivity being reflected in increased levels of living. This would be in contrast to vast areas of the globe, particularly in the Orient, where increased productivity for some time is likely to mean accelerated population growth at a rate which may prevent or greatly detract from rising standards of living.

In the last analysis then, the real import of declining rates of population growth in the United States in the atomic age depends on the ability of man to match his technical prowess with social and political wisdom.
PROBLEMS OF PASSIVE DEFENCE
By ADMIRAL W. S. PARSONS, U. S. N.

The problems of city planning and design of structures for resistance to atomic bombimg might offhand seem to bear little resemblance to the problems of ship design. But I feel that one of the general conclusions from the Bikini tests has application to national planning, city planning and structural design.

This general conclusion was that changes in ship design to give increased resistance to atomic blast and radiation should not be such as to handicap the ship in performing its primary function.

To illustrate the point: a destroyer needs to be light, fast and hard-hitting—above the surface, on the surface and below the surface. If, in order to make this ship resist atomic bombs at less than half a mile, it were loaded down with heavy shielding and its radar equipment were reduced to the point of loss of range and sharpness, then we would have bought a small increase in security at a great cost in operational value.

What we can do is to consider most carefully all of the effects of atomic bombs against ships and take these into account whenever a redesign is made. For example, most stacks and radar antennas suffer from all kinds of blast, including typhoons. It is quite reasonable to redesign these projecting elements to increase their ability to resist lashing from severe storms—and to stop at this point.

In connection with Bikini, you recall that those tests consisted of one air and one surface burst against an array of ships. Damage ranged from sinking to superfluous depending on the presentation and distance of the target ship.

An atomic air burst will render useless almost any feasible above-ground structure at distances out to about half a mile. Beyond this range structures which are designed to resist tornados, fires and earthquakes also begin to resist the blast, wind, heat and shock produced by an atomic bomb.

To give an idea of the magnitude and duration of the atomic blast which a building encounters in the outer zone of severe damage, it is estimated that at 2000 yards from a twenty-thousand-ton bomb the peak pressure would be 4 p.s.i. and the positive pressure pulse would last 85 sec. The wind which accompanies this blast may reach 140 m.p.h. for a brief instant.

In my opinion the sound approach to city and structure design is to continue to emphasize primary function and to add atomic blast and radiation flash to the list of natural and man-made catastrophes which may at some time be encountered.
Obviously, enunciation of a general principle does not solve specific problems of location and design of structures. These specific problems can only be examined within the setting and framework of the geography, transportation and many other controlling factors. In each case, if we look ahead five or ten years, we must consider the possibility of encountering atomic blast. This possibility may for some places be so small that it can be neglected—in other cases it may be greater than the hazard from a hurricane or earthquake. In any event it should be taken into account, if only to dismiss it.

I believe that partly because atomic secrecy has thrown a smokescreen of mystery around atomic energy, those outside of this American "iron curtain" have credited the insiders with profound and extensive knowledge. If there is such a person as an Atomic Oracle, I, for one, have never met him and I would suspect him if I did. The point of these assertions is that there is an upper limit to what "Washington" can give in the line of "know-how" in this complicated field.

The effects of atomic bomb explosions against different types of structure have been carefully studied since Hiroshima. In late January and early February, 1949, a group of highly qualified individuals gathered at the Los Alamos Scientific Laboratory to prepare a handbook of effects of atomic weapons. I have seen preliminary drafts of most of the chapters, and I feel that this handbook will make much-needed basic information available. Several chapters will provide engineering design criteria and analyses comparable to those used to design against fires, hurricanes and earthquakes. In my opinion, this handbook will be an important contribution to civil defense and is an example of the kind of know how that central agencies can provide. Given this information designers have the choice of deriving their own criteria or using some form of comparison of atomic blast and shock with more conventional catastrophes.

As I implied earlier, an attempt to provide complete (necessarily underground) protection against atomic attack at close range would cost so much and would interfere so greatly with what we have come to regard as normal living that it is unacceptable. The only alternative is to accept a "calculated risk" the military euphemism for taking a chance. There is nothing unusual about such a compromise with fate. We make these decisions each time we ride in a taxicab or go skating or skiing.

The practical question faced by a city planner or building designer is "What can be done with what is available?" Absolute safety has never existed this side of the grave.

Based on the European and Japanese experience with
FACE BRICK
FLOOR BRICK       CHEMICAL BRICK
STRUCTURAL FACING TILE
CERAMIC GLAZED BRICK and TILE
TERRA COTTA
Pittsburgh-Corning Glass Block
The Kemper-Ulery Brick Co.
Auditorium Bldg. PHont 2898 Cleveland, O.

We make anything in leather to your specifications
• BREAKFAST NOOKS
• LOUNGE BARS
• LEATHER BOOTHS
LEATHERBILT CO.
RAndolph 8666
3137 EAST 93rd ST. CLEVELAND, OHIO

THE HUNKIN-CONKEY CONSTRUCTION COMPANY
CLEVELAND 14, OHIO

HAMILTON DISPLAYS, Inc.
Cold Cathode Lighting
EXPERIENCED ENGINEERING
FROM BLUEPRINT TO INSTALLATION
CUSTOM FIXTURES
UNDERWRITERS LABEL SERVICE
ELECTRIC SIGNS
1869 E. 79 St. RA. 4100 Cleveland
Ohio

bombing, it seems essential to provide warning systems and shelters against bomb blast and atomic radiation. The U.S. Strategic Bombing Survey concluded that had warning been heeded at Hiroshima and Nagasaki even the primitive shelters there would have been effective in saving life. In this connection I quote a paragraph from the Survey report on “The Effects of Atomic Bombs on Hiroshima and Nagasaki” dated 30 June, 1946:

“...The most instructive fact at Nagasaki was the survival, even when near ground zero, of the few hundred people who were properly placed in the tunnel shelters. Carefully built shelters, though unoccupied, stood up well in both cities. Without question, shelters can protect those who get to them against anything but a direct hit. Adequate warning will assure that a maximum number get to shelters.”

As a general program, trends should be examined in the light of available information. From this examination, acceleration of some trends and changes in others will be in order. For example, traffic congestion caused by heavy concentration of workers in parts of large cities is undesirable from several points of view, particularly atomic defense. Other problems of city planning and choice of criteria for structural design are finally solvable only by those who have extensive local knowledge and responsibility.

The emphasis on need for local thinking is intended to bring home the fact that modern war, even of the pre-atomic variety involves the civilian population as never before. The civilian pays the bill for all defense, then in case war comes he may find his cities part of the combat zone, and finally when the war is over he pays for repair of the damage. These facts alone should offset any tendency to feel that all the necessary thinking and planning can be done by some far distant group of military and atomic experts, with the conclusions and decisions handed out to each city and region on a “push button” basis.

I would sum up by saying that to me the most important element of atomic and other defense is our attitude toward it. We would be self-defeated if we saturated our energies and our economy in a hysterical effort to buy absolute safety. On the other hand, we should make every effort to add atomic facts of life—subtle and obvious, pleasant and unpleasant—to our folklore. As this process proceeds, we will be increasingly able to apply common instead of uncommon sense to the problems, and in this measure the overall solutions will be sound.

A.S.O. Convention—Cleveland, October 13 and 14

for repair of the damage. These facts alone should offset any tendency to feel that all the necessary thinking and planning can be done by some far distant group of military and atomic experts, with the conclusions and decisions handed out to each city and region on a “push button” basis.

I would sum up by saying that to me the most important element of atomic and other defense is our attitude toward it. We would be self-defeated if we saturated our energies and our economy in a hysterical effort to buy absolute safety. On the other hand, we should make every effort to add atomic facts of life—subtle and obvious, pleasant and unpleasant—to our folklore. As this process proceeds, we will be increasingly able to apply common instead of uncommon sense to the problems, and in this measure the overall solutions will be sound.

for repair of the damage. These facts alone should offset any tendency to feel that all the necessary thinking and planning can be done by some far distant group of military and atomic experts, with the conclusions and decisions handed out to each city and region on a “push button” basis.

I would sum up by saying that to me the most important element of atomic and other defense is our attitude toward it. We would be self-defeated if we saturated our energies and our economy in a hysterical effort to buy absolute safety. On the other hand, we should make every effort to add atomic facts of life—subtle and obvious, pleasant and unpleasant—to our folklore. As this process proceeds, we will be increasingly able to apply common instead of uncommon sense to the problems, and in this measure the overall solutions will be sound.

for repair of the damage. These facts alone should offset any tendency to feel that all the necessary thinking and planning can be done by some far distant group of military and atomic experts, with the conclusions and decisions handed out to each city and region on a “push button” basis.

I would sum up by saying that to me the most important element of atomic and other defense is our attitude toward it. We would be self-defeated if we saturated our energies and our economy in a hysterical effort to buy absolute safety. On the other hand, we should make every effort to add atomic facts of life—subtle and obvious, pleasant and unpleasant—to our folklore. As this process proceeds, we will be increasingly able to apply common instead of uncommon sense to the problems, and in this measure the overall solutions will be sound.

for repair of the damage. These facts alone should offset any tendency to feel that all the necessary thinking and planning can be done by some far distant group of military and atomic experts, with the conclusions and decisions handed out to each city and region on a “push button” basis.

I would sum up by saying that to me the most important element of atomic and other defense is our attitude toward it. We would be self-defeated if we saturated our energies and our economy in a hysterical effort to buy absolute safety. On the other hand, we should make every effort to add atomic facts of life—subtle and obvious, pleasant and unpleasant—to our folklore. As this process proceeds, we will be increasingly able to apply common instead of uncommon sense to the problems, and in this measure the overall solutions will be sound.
NEW PARTNERSHIP

William J. Moore and Russell G. Glass announce the formation of the partnership of Moore & Glass with offices at 18609 St. Clair Avenue, Cleveland 10, Ohio.

The firm of Moore & Glass are exclusive Engineering Sales representatives for the following companies in the northeastern Ohio area. Macomber, Inc.; Steel joists, trusses, roof deck and steel buildings. Crittall-Federal, Inc.; Steel windows. Moeschl-Edwards Corrugating Co.; Rolling steel doors, kalamein and tin clad doors. Sterling Windows, Inc.: Aluminum windows. Williamsburg Steel Products Company; Hollow metal products. Additional allied products are also handled by the firm.

Russell G. Glass has been active for many years as a Manufacturer's Representative in the building equipment field. A graduate of Ohio State University in Civil Engineering he is a Registered Professional Engineer and a member of the Cleveland Engineering Society and Past President of Theta Tau, Professional Engineering Fraternity. Mr. Glass is also active in local and state Kiwanis clubs and is at present President of the Euclid Board of Education. During the war Mr. Glass served in the U.S. Navy in charge of construction of several bases in the Mediterranean area and also as Executive Officer at Bizerte, Tunis, N. A.

William J. Moore has been a practicing architectural engineer for several years in Cleveland and prior to his own consulting engineering prac-

A.S.O. Convention — Cleveland October 13 and 14

tice was affiliated with Truscon Steel Company in various engineering capacities and more recently a Branch Sales Manager. Mr. Moore is a graduate of Carnegie Institute of Technology, a member of the Cleveland, Ohio and National Society of Professional Engineers.

The new firm is fully competent by the past experience of its personnel to render complete consultation and engineering sales services to builders and architects covering all types of specialized steel building products.

For Gas, Oil or Coal

Winter Air-Conditioning

NiAGARA is the word for DEPENDABILITY and ECONOMY

The Niagara line of winter air conditioning and gravity furnaces comprises over 30 models for large and small homes. Included are utility units requiring as little as 5 to 7 square feet of floor space. Write or phone for complete specification sheets.

NiAGARA FURNACE DIVISION
THE FOREST CITY FOUNDRIES COMPANY
2500 West 27th St. (Tower 1-5040) Cleveland 13, Ohio

SPECIFY The Original TELESCOPIC LAMP POST

ADJUSTA-POST

EASILY INSTALLED
INDIVIDUALLY PACKAGED
WRITE TODAY

THE ADJUSTA-POST MANUFACTURING CO.
908 St. Clair at Bovery, Akron 7, Ohio

THE EDWARD R. HART CO.
CANTON'S DEPENDABLE BUILT-UP ROOFERS & INSULATION CONTRACTORS
Phone 55346-7
437 McGregor Ave., N.W. CANTON, O.
SPECIFICATIONS FOR CONCRETE PAVEMENT CONSTRUCTION

1. DESCRIPTION
1.0 This item shall consist of a pavement of Portland Cement concrete, with or without reinforcement as shown on the plans, constructed on the prepared subgrade or other base course as indicated by these specifications and in conformity with the lines, grades, thickness and typical cross section as shown on the plans. Portland cement concrete shall consist of an intimate mixture of Portland cement, fine aggregate, coarse aggregate, and water.

1.1 QUALITY OF CONCRETE
Concrete shall be considered of satisfactory quality provided it is made (1) of materials accepted for the job, (2) of the approved mix, and (3) in complete accordance with the requirements stated under "Construction Methods."

2. MATERIALS
All materials shall meet the requirements for T-71 of State of Ohio, Department of Highways, Material Specifications in force on date of contract for this improvement.

3. PROPORTIONING OF CONCRETE
3.0 Concrete shall be made (a) of materials accepted for the project, (b) of proportions designated by the engineer and (c) in accordance with the requirements under "Construction Methods."

3.1 Aggregates shall be proportioned into the mix separately, by weight, unless specifically approved otherwise by the engineer. Water may be proportioned either by weight or volume. Portland Cement may be proportioned by weight or by the full sack. A sack of cement may be taken as 94 pounds. Batches requiring a portion of a sack will not be permitted unless all cement used in the batch is weighed.

3.2 The minimum cement content shall not be less than 6.0 sacks per cubic yard of concrete and the maximum water content shall not exceed 6.0 gallons per sack of cement, including water contained by the aggregates other than by absorption.

3.3 The concrete as placed in the forms shall contain from 3% to 6% by volume of entrained air. Determination of air content shall be made by the engineer or someone designated by him. If the air content cannot be kept within the above limits by adjustments in the batch weights, normal portland cement shall be used as a part of the required cement to reduce air content or an air-entraining agent shall be added at the mixer to increase the air content.

4. CONSTRUCTION METHODS
4.0 Equipment and tools necessary for handling materials and performing all parts of the work which meet the approval of the engineer as to design, capacity and mechanical condition, must be on the job before the work is started. Any equipment which is not maintained in full working order or which as used by the contractor, is proved inadequate to obtain the results prescribed, shall be improved or new equipment substituted or added as directed by the engineer.

4.1 Subgrade—The subgrade shall be cut true to line and grade and shall be firm and without soft spots. The subgrade shall be compacted by rolling on all fills 6 inches or over and elsewhere if so directed by the
engineer. Immediately in advance of concreting operations, the subgrade shall be checked with a scratch template. All low or high spots shall be brought to grade in a uniformly compacted condition.

4.2 The subgrade shall be moist but not muddy at the time of placing concrete. Concrete shall not be placed on a frozen subgrade.

5. FORMS

5.0 Side forms shall be of standard metal type unless specifically approved otherwise by the engineer.

5.1 Undercutting of wood forms will not be permitted.

5.2 Forms shall be true to line and grade and securely staked so as to be unyielding during concreting operations. Top faces of forms shall not vary from a true plane more than \( \frac{\frac{1}{2}}{10} \) inch in 10 feet.

5.3 Earth under the forms shall be securely compacted prior to placing of concrete.

6. MIXING AND PLACING CONCRETE

6.0 A uniform consistency of concrete shall be maintained. When concrete is to be consolidated by vibration, the slump shall be not less than 1 inch or more than 2 inches. When the slab as a whole is not to be vibrated the slump shall be not less than 2 inches or more than 3 inches.

6.1 Concrete may be mixed on the site in a batch mixer, mixed in transit mixers or mixed in a central mixing plant. Sufficient notice shall be given the engineer, prior to placing concrete, of the method of mixing to be used so that mixing and delivery equipment can be checked and approved for use.

6.2 Joints shall be installed as shown on the plans or as directed by the engineer. Joints shall be straight and perpendicular to the pavement surface. Care must be taken to avoid finishing at joints.

6.3 Concrete, as soon as placed, shall be struck off and screeded to the crown and cross-section shown on the plans and to such elevation above grade that when consolidated and finished the surface of the pavement shall be at the grade elevation indicated by the plans. The entire surface shall then be tamped and the tamping operation continued until the required compaction and reduction of surface voids is secured. A strike or tamping templet shall be provided for this work. It shall be durably constructed of 3-inch or 4-inch lumber, steel shod, or of steel of channel cross-section, two feet longer than the proposed width of pavement slab and sufficiently strong and rigid to retain its shape under all working conditions. In making the strike-off
above mentioned, the templet shall be moved with a combined longitudinal and transverse shearing motion, moving always in the direction in which the work is progressing and so manipulated that neither end is raised from the side forms during the striking-off process.

6.4 A vibrating screed may be used in lieu of hand methods if approved by the engineer.

6.5 Pavement surface shall be straight-edged and floated to a true surface as called for on plans. Finishing operations shall be such as to require a minimum of manipulation from initial placing to finished surface.

6.6 Surface of pavement shall be finally finished by means of a burlap drag or as directed by the engineer.

6.7 All joints and pavement edges shall be edged with a tool having a maximum radius of 1/8 inch.

7. CURING

7.0 As soon as possible, after pavement is finished, without marring the surface, the concrete shall be cured by some standard recognized procedure approved by the engineer. Meeting the requirements of Ohio State Highway specifications under curing 1-71 shall be deemed approved standard procedure.

8. COLD WEATHER

8.0 No concrete shall be placed when the air temperature in shade is below 40° and falling unless specifically approved by the engineer after preparations are made for artificial heating.

9. OPENING TO TRAFFIC

9.0 The pavement shall not be open to traffic or contractors equipment until so ordered by the engineer. The contractor shall maintain adequate barricades and protection to the pavement to prevent traffic from using the pavement until opened by the engineer.
Huron School, Huron, Ohio, designed in architectural concrete by Harold Parker and C. Edward Wolfe, associate architects of Sandusky, Ohio. R. C. Reese of Toledo was structural engineer. Contractor was the Juergens Co., Lakewood, Ohio.

Roof over gymnasium and auditorium areas is series of reinforced concrete barrel shells. Acoustical lining was cast with the concrete in the gymnasium area. Roberts & Schaefer Co., Chicago, was consulting engineer on this roof design.

**Architectural Concrete**

Firesafety, strength, durability and low annual cost, as well as any desired architectural appearance are obtained economically with architectural concrete construction.

In the architectural concrete school building at Huron, Ohio, latest technical information was applied to the handling of control joints, form detailing and floor and roof designs. This expedited construction and assured long life with reasonable maintenance expense.

**PORTLAND CEMENT ASSOCIATION**

50 W. BROAD ST., COLUMBUS 15, OHIO

A national organization to improve and extend the uses of concrete through scientific research and engineering field work

**See Sweet's Architectural Catalog**

Firesafety, strength, durability and low annual cost, as well as any desired architectural appearance are obtained economically with architectural concrete construction.

Beyond the advantages of strength, firesafety and fine appearance—concrete gives owners low annual cost, the true measure of economy in buildings.

We have literature especially prepared to assist in architectural planning for educational buildings. Free in United States and Canada.
SPECIFY BeeGee WOOD WINDOWS

✓ FOR MODERN Style!
✓ FOR EASY CLEANING – IN AND OUT!
✓ FOR SUNNIER, AIRIER ROOMS!
✓ FOR LOW-COST INSTALLATION!

Free! Write for catalogue containing full description and all sizes of Bee Gee modern WOOD WINDOWS.

Specify Brown-Graves For Highest Quality
ARCHITECTURAL MILLWORK
Estimates gladly given on any size job

BROWN - GRAVES CO. AKRON, OHIO